

Montana DEQ Forest Fire Smoke Advisory

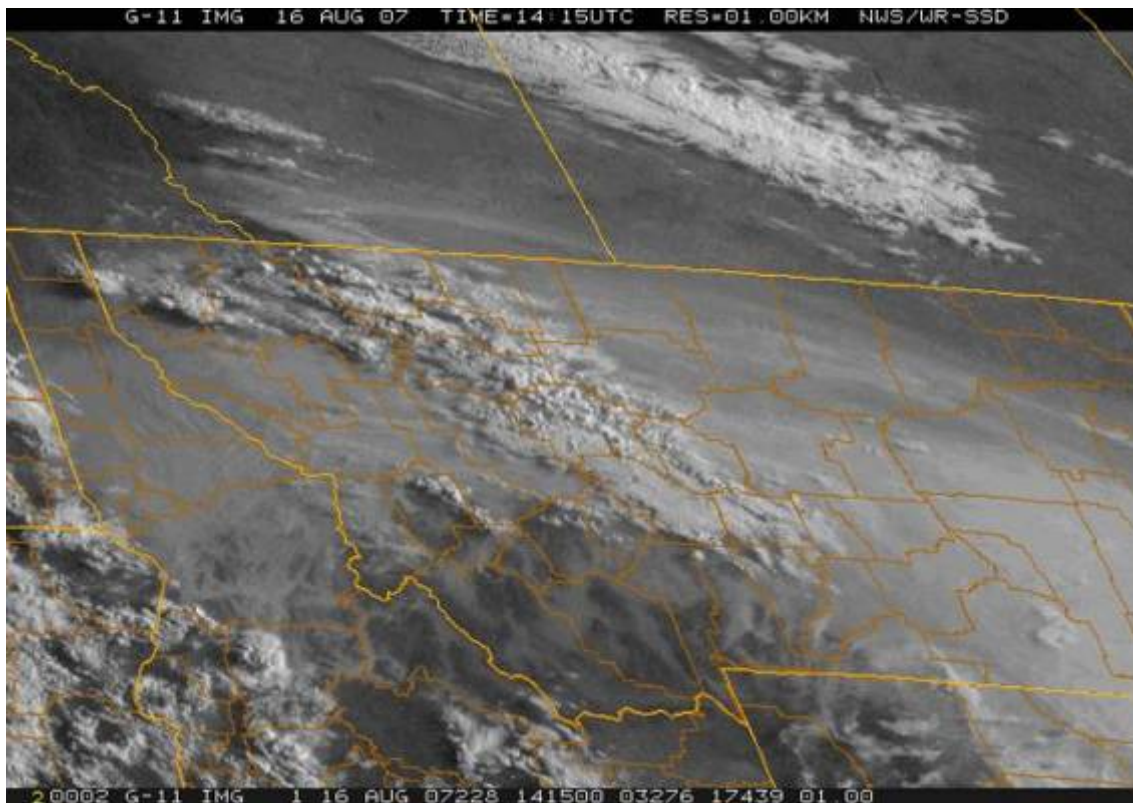
August 16 2007

10:00 AM Thursday

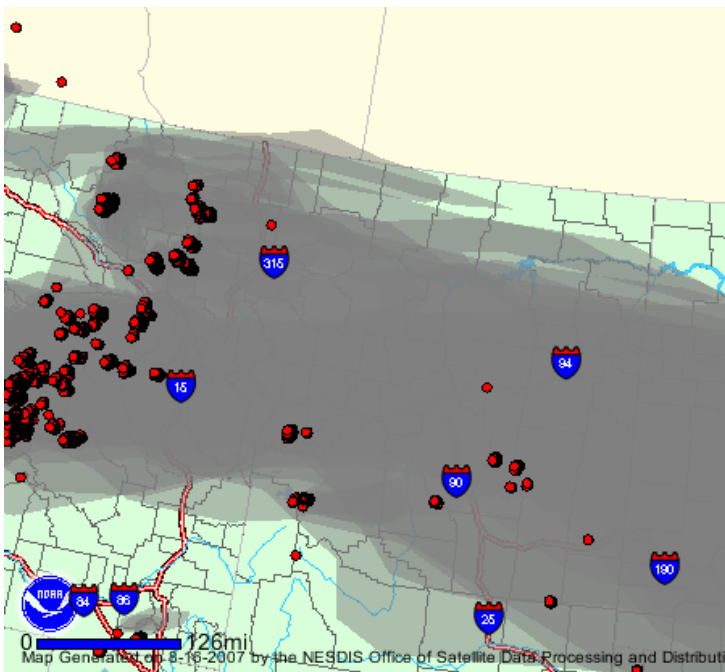
Current Situation

Western and southwestern Montana are being heavily impacted by smoke this morning with [VERY UHEALTHY](#) smoke being measured in Butte and [UNHEALTHY](#) levels in Whitefish, Kalispell, Polson, Missoula, Hamilton, and Dillon. Ronan and Helena are at [UNHEALTHY FOR SENSITIVE](#) this morning. Many other areas of western Montana with no reporting mechanism are also being impacted today. The smoke plume aloft has shifted north today as southerly flow last night moved it over the northern two thirds of the state. Except for Livingston area where conditions are [MODERATE](#) most of the state east of the mountains is not experiencing impacts at the surface, just very hazy skies. The smoke aloft will mix down later this morning for noticeable impacts across a wide area. Winds will be switching around today along with some gusts from scattered thunderstorms. This could push plumes into areas that have not been impacted lately. Residents near active fires or experiencing noticeable smoke levels should use the [VISIBILITY GUIDELINES](#) to determine smoke levels in their area and guide their activity decisions. Smoke aloft will mix down in many areas later this morning and direct smoke impacts from active fires will also be a problem again this afternoon. See the forecast at the bottom for details.

Morning satellite photo centered on Great Falls:



This morning's analysis from NOAA's satellite services division shows the active fires in Montana and the smoke plumes combining and spreading downwind(the analyzed smoke is based on yesterday's satellite coverage, the fire detects are based on last night's satellite coverage)



Red indicates hot spot detected. Grey represents smoke seen by satellite.
Fire size is exaggerated for visibility at this scale.

To identify individual fires on graphic above go here:

http://activefiremaps.fs.fed.us/lg_fire2.php

Real time particulate information is currently available in most of the larger urban areas from several different sources including: DEQ run PM-10 BAMS and PM2.5 BAMS, CS&KT run PM-10 TEOMS, NWS ASOS visibility monitors, and USFS remote access Nephelometers and BAMS.

This morning's smoke report is below, comparing particulate levels where we have information to MDEQ's Forest Fire health advisory levels.

Updated 10 AM August 16, 2007

Locations and severity of forest fire smoke reports since midnight of the date above at reporting stations.

<u>HAZARDOUS</u>	
<u>VERY UNHEALTHY</u>	Butte T24
<u>UNHEALTHY</u>	Kalispell T24 Whitefish T24 Polson T24 Hamilton T24 Missoula T8 Dillon Vis(8)
<u>UNHEALTHY FOR SENSITIVE GROUPS</u>	Ronan T24 Helena T24
<u>MODERATE</u>	Livingston Vis(2) Bozeman Vis(8) West Yellowstone Choteau T24 Augusta T24

T1(x)	One-hour TEOM or BAM value (number of values)
T8(x)	Eight-hour average TEOM or BAM value(number of values)
T24	24 hour average TEOM or BAM value
Vis(x)	Visibility value(number of hours)
Vis(am/pm)	Visibility value from twice/day reporting stations
(est)	estimate

Local impacts in areas immediately adjacent to active fires are expected to exceed some or all of the advisory levels. DEQ recommends the use of local [visibility guidelines](#) to evaluate possible health risks and make informed activity decisions.

Forecast

Scattered thunderstorms with gusty winds and a pronounced wind shift later today make it very hard to predict where smoke plumes will be going. Winds in many areas will be easterly early, shifting around to the south and then the southwest. Smoke trapped in mountain valleys today is unlikely to thin out much as the smoke blocks enough sunshine to limit surface heating and dampen out convection. Some areas may still get a dose of good dispersion if they happen to produce a thunderstorm but overall stagnant conditions are expected to persist through the day. Fire activity levels are expected to remain high along with smoke production and smoke concentrations will not improve before tomorrow in most areas. Some thinning will occur during the warmest part of the day. Residents downwind of the active fires and experiencing impacts from residual smoke will need to pay close attention to conditions in their area and use the [visibility guidelines](#) to guide their activity decisions as the situation changes.

[John Coefield](#)

Meteorologist

Montana Department of Environmental Quality